

What is claimed is:

1. An apparatus for providing a crypto key and an associated checkword of said crypto key to an encryption device for a telemeter system of a missile, said apparatus comprising:

loading means for generating said crypto key and said associated checkword;

control means connected to said loading means to receive said crypto key and said associated checkword from said loading means, said control means sending a first logic signal to said loading means to effect a transfer of said crypto key and said associated checkword from said loading means to said control means for storage within said control means;

said control means being connected to said encryption device, said control means sending a second logic signal to said encryption device to initiate a load of said crypto key and said associated checkword into said encryption device;

said control means receiving from said encryption device a third logic signal, said control means, responsive to said third logic signal, loading said crypto key and said associated checkword into

24 said encryption device;
 25 said control means being connected to a transmitter
 26 for the telemeter system of said missile, said
 27 control means providing a fourth logic signal to
 28 said transmitter to disable said transmitter when
 29 said crypto key and said associated checkword are
 30 loaded into said encryption device preventing said
 31 crypto key and said associated checkword from
 32 being transmitted by said transmitter; and
 33 said control means being connected to a missile
 34 interface within said missile to receive a fifth
 35 logic signal from said missile interface upon a
 36 launch of said missile, said control means,
 37 responsive to said fifth logic signal, erasing
 38 said crypto key and said associated checkword from
 39 said control means.

1 2. The apparatus of claim 1 wherein said control means
 2 comprises an 8-bit Microcontroller.

1 3. The apparatus of claim 1 wherein said control means
 2 includes an EEPROM for storing said crypto key and said
 3 associated checkword and a copy of said crypto key and said
 4 associated checkword.

1 4. The apparatus of claim 1 further comprising a
2 light emitting diode connected to said control means, said
3 light emitting diode displaying a status for a load of said
4 crypto key and said associated checkword into said
5 encryption device.

1 5. The apparatus of claim 1 further comprising a light
2 emitting diode connected to said control means, said light
3 emitting diode displaying a status for an erase of said
4 crypto key and said associated checkword from said
5 microcontroller.

1 6. An apparatus for providing a crypto key and an
2 associated checkword of said crypto key to an encryption
3 device for a telemeter system of a missile, said apparatus
4 comprising:

5 a key loader having said crypto key and said associated
6 checkword stored therein;

7 a microcontroller connected to said key loader to
8 receive said crypto key and said associated
9 checkword from said key loader, said
10 microcontroller sending a first variable request
11 signal to said key loader to effect a transfer of

12 said crypto key and said associated checkword from
 13 said key loader to said microcontroller for
 14 storage within said microcontroller;
 15 said microcontroller being connected to said encryption
 16 device, said microcontroller sending a sense in
 17 signal to said encryption device to initiate a
 18 load of said crypto key and said associated
 19 checkword into said encryption device;
 20 said microcontroller receiving from said encryption
 21 device a second variable request signal, said
 22 microcontroller, responsive to said second
 23 variable request, loading said crypto key and said
 24 associated checkword into said encryption device;
 25 and
 26 said microcontroller being connected to a transmitter
 27 for the telemeter system of said missile, said
 28 microcontroller providing a transmitter disable
 29 signal to said transmitter to disable said
 30 transmitter when said crypto key and said
 31 associated checkword are loaded into said
 32 encryption device preventing said crypto key and
 33 said associated checkword from being transmitted
 34 by said transmitter.

1 7. The apparatus of claim 6 wherein said
2 microcontroller comprises an 8-bit Microcontroller.

1 8. The apparatus of claim 6 wherein said
2 microcontroller includes an EEPROM for storing said crypto
3 key and said associated checkword and a copy of said crypto
4 key and said associated checkword.

1 9. The apparatus of claim 6 further comprising a
2 light emitting diode connected to said microcontroller, said
3 light emitting diode displaying a status for a load of said
4 crypto key and said associated checkword into said
5 encryption device.

1 10. The apparatus of claim 6 wherein said
2 microcontroller is connected to a missile interface within
3 said missile to receive a launch signal from said missile
4 interface upon a launch of said missile, said
5 microcontroller, responsive to said launch signal, erasing
6 said crypto key and said associated checkword from said
7 microcontroller.

1 11. The apparatus of claim 10 further comprising a
2 light emitting diode connected to said microcontroller, said

3 light emitting diode displaying a status for an erase of
4 said crypto key and said associated checkword from said
5 microcontroller.

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1 12. The apparatus of claim 6 wherein said
2 microcontroller is connected to a loader interface within
3 said missile to receive an erase signal from said loader
4 interface, said microcontroller, responsive to said erase
5 signal, erasing said crypto key and said associated
6 checkword from said microcontroller.

7 13. An apparatus for providing a crypto key and an
8 associated checkword of said crypto key to an encryption
9 device for a telemeter system of a missile, said apparatus
10 comprising:

11 a key loader having said crypto key and said associated
12 checkword stored therein;

13 a microcontroller connected to said key loader to
receive said crypto key and said associated
checkword from said key loader, said
microcontroller sending a first variable request
signal to said key loader to effect a transfer of
said crypto key and said associated checkword from
said key loader to said microcontroller for

14 storage within said microcontroller;
15 said microcontroller being connected to said encryption
16 device, said microcontroller sending a sense in
17 signal to said encryption device to initiate a
18 load of said crypto key and said associated
19 checkword into said encryption device;
20 said microcontroller receiving from said encryption
21 device a second variable request signal, said
22 microcontroller, responsive to said second
23 variable request, loading said crypto key and said
24 associated checkword into said encryption device;
25 said microcontroller being connected to a transmitter
26 for the telemeter system of said missile, said
27 microcontroller providing a transmitter disable
28 signal to said transmitter to disable said
29 transmitter when said crypto key and said
30 associated checkword are loaded into said
31 encryption device preventing said crypto key and
32 said associated checkword from being transmitted
33 by said transmitter;
34 a first light emitting diode connected to said
35 microcontroller, said first light emitting diode
36 displaying a status for a load of said crypto key
37 and said associated checkword into said encryption

38 device;
39 said microcontroller being connected to a missile
40 interface within said missile to receive a launch
41 signal from said missile interface upon a launch
42 of said missile, said microcontroller, responsive
43 to said launch signal, erasing said crypto key and
44 said associated checkword from said
45 microcontroller;
46 a second light emitting diode connected to said
47 microcontroller, said second light emitting diode
48 displaying a status for an erase of said crypto
49 key and said associated checkword from said
50 microcontroller.

14. The apparatus of claim 13 wherein said
microcontroller comprises an 8-bit Microcontroller.

15. The apparatus of claim 13 wherein said
microcontroller includes an EEPROM for storing said crypto
key and said associated checkword and a copy of said crypto
key and said associated checkword.

16. The apparatus of claim 13 wherein said
microcontroller is connected to a loader interface within

3 said missile to receive an erase signal from said loader
4 interface, said microcontroller, responsive to said erase
5 signal, erasing said crypto key and said associated
6 checkword from said microcontroller.

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